FIG. 1

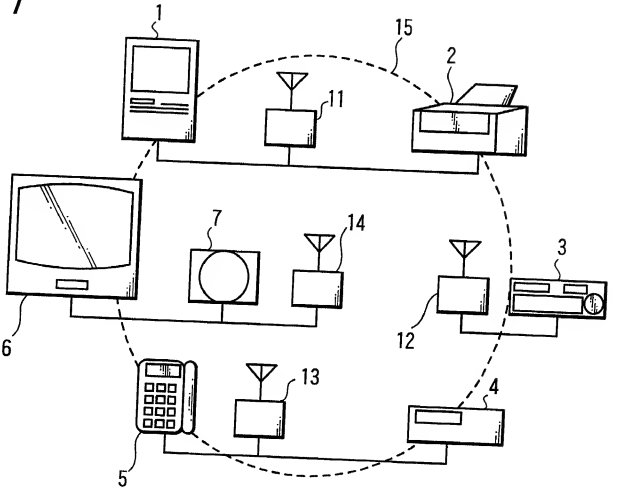


FIG. 2

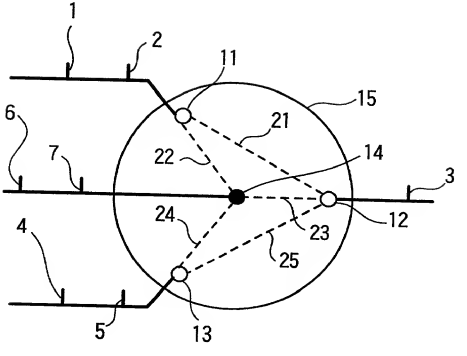


FIG. 3

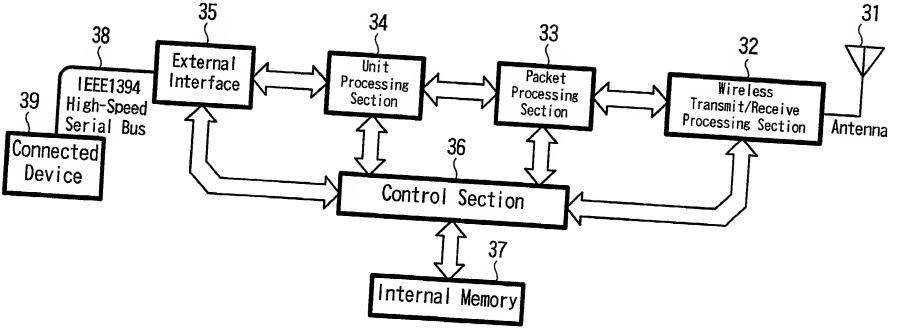

35
38
34
33
31
32
External Interface
Unit Processing Section
Packet Processing Section
Wireless Transmit/Receive Processing Section
Antenna
IEEE1394 High-Speed Serial Bus
39
Connected Device
36
Control Section
37
Internal Memory

FIG. 4

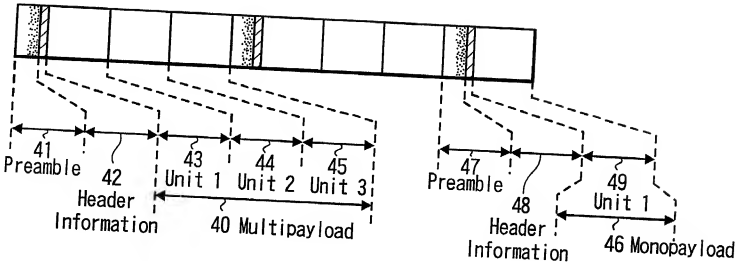

41
Preamble
42
Header
Information
43
Unit 1
44
Unit 2
45
Unit 3
40 Multipayload
47
Preamble
48
Header
Information
49
Unit 1
46 Monopayload

FIG. 5

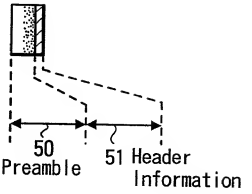
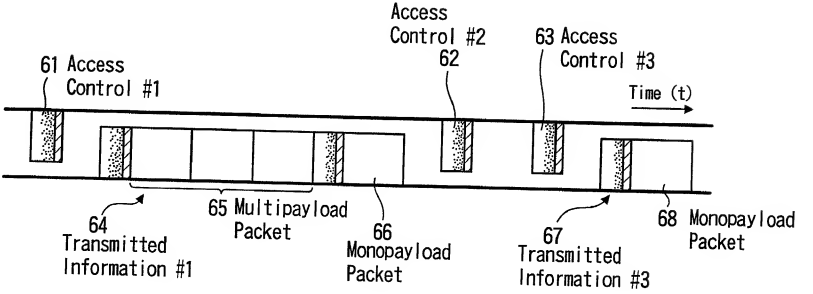


FIG. 6


61 Access Control #1
Access Control #2
62
63 Access Control #3
Time (t)
64 Transmitted Information #1
65 Multipayload Packet
66 Monopayload Packet
67 Transmitted Information #3
68 Monopayload Packet

FGE120 66525760

FIG. 7A Example of Structure of Header Information of Access Control Packet

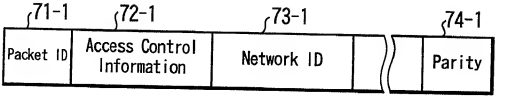


FIG. 7B Example of Structure of Common Header Information

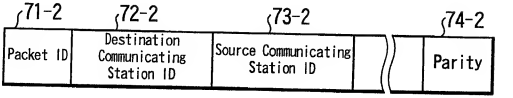


FIG. 7C Example of Structure of Header Information Added to Data Packet

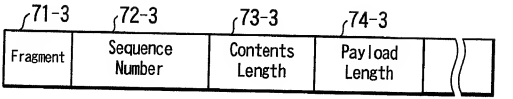


FIG. 8

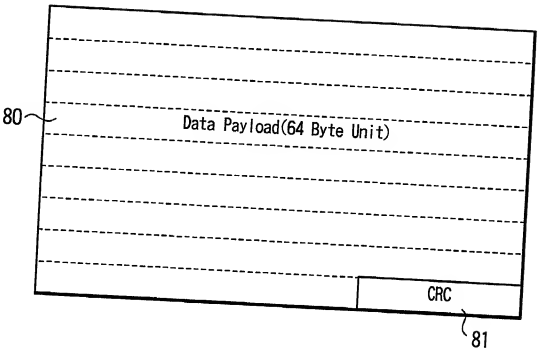


FIG. 9

90 Packet Use	91 Packet Name	92 Packet ID	93 Packet Contents	94 Remarks
Access Control Packet	Non-payload Packet	0000	Header	Control Information Network ID
Data Packet	Monopayload Packet	0001	Header+Data Unit×1	Fragment Sequence Number Contents Length
	Multipayload Packet	0010	Header+Data Unit×2	
		0011	Header+Data Unit×3	
		0100	Header+Data Unit×4	
		0101	Header+Data Unit×6	
		0110	Header+Data Unit×8	
		0111	Header+Data Unit×N	+Payload Length

FIG. 10

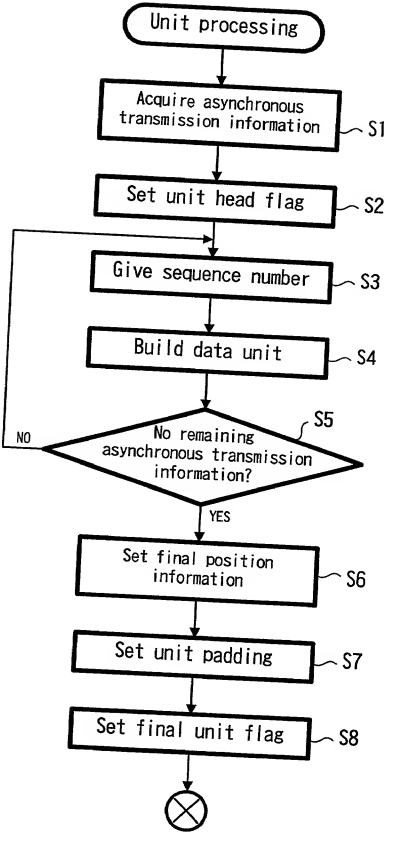

Unit processing
Acquire asynchronous transmission information
S1
Set unit head flag
S2
Give sequence number
S3
Build data unit
S4
No remaining asynchronous transmission information?
S5
NO
YES
Set final position information
S6
Set unit padding
S7
Set final unit flag
S8

FIG. 11

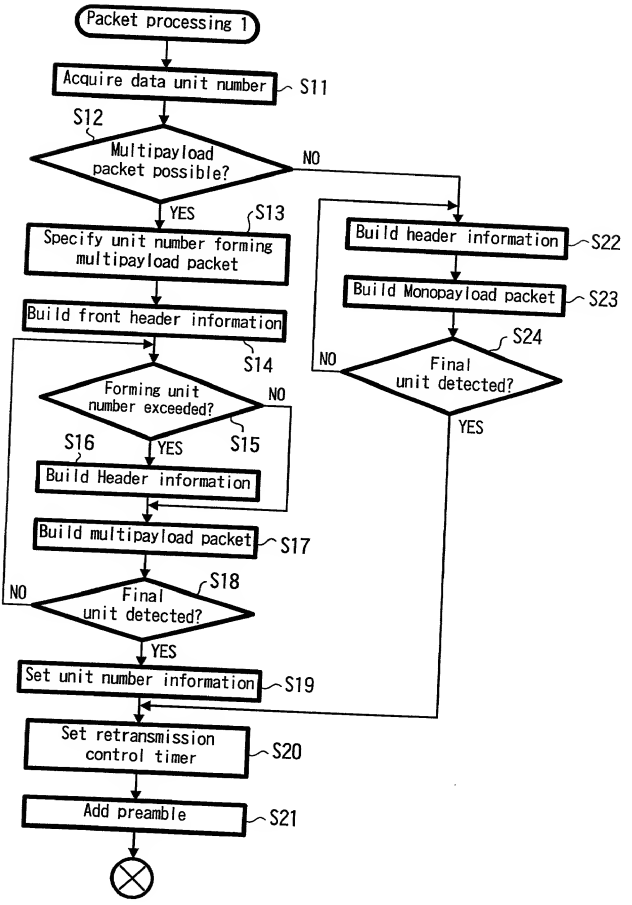
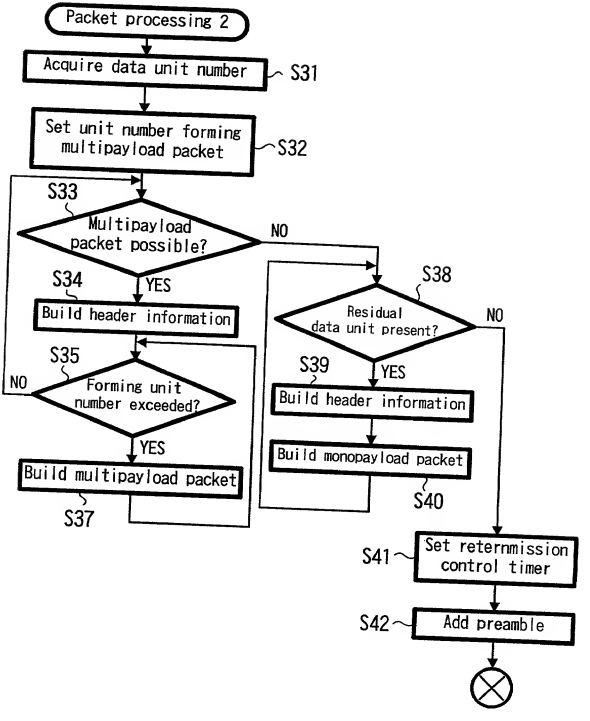

Packet processing 1
Acquire data unit number
S11
S12
Multipayload packet possible?
NO
YES
S13
Specify unit number forming multipayload packet
Build front header information
S14
Forming unit number exceeded?
NO
YES
S15
S16
Build Header information
Build multipayload packet
S17
S18
Final unit detected?
NO
YES
Set unit number information
S19
Set retransmission control timer
S20
Add preamble
S21
Build header information
S22
Build Monopayload packet
S23
S24
Final unit detected?
NO
YES

FIG. 12


Packet processing 2
Acquire data unit number
S31
Set unit number forming multipayload packet
S32
S33
Multipayload packet possible?
NO
YES
S34
Build header information
S35
NO
Forming unit number exceeded?
YES
Build multipayload packet
S37
S38
Residual data unit present?
NO
S39
YES
Build header information
Build monopayload packet
S40
S41
Set reternmission control timer
S42
Add preamble

Not Protected

FIG. 13

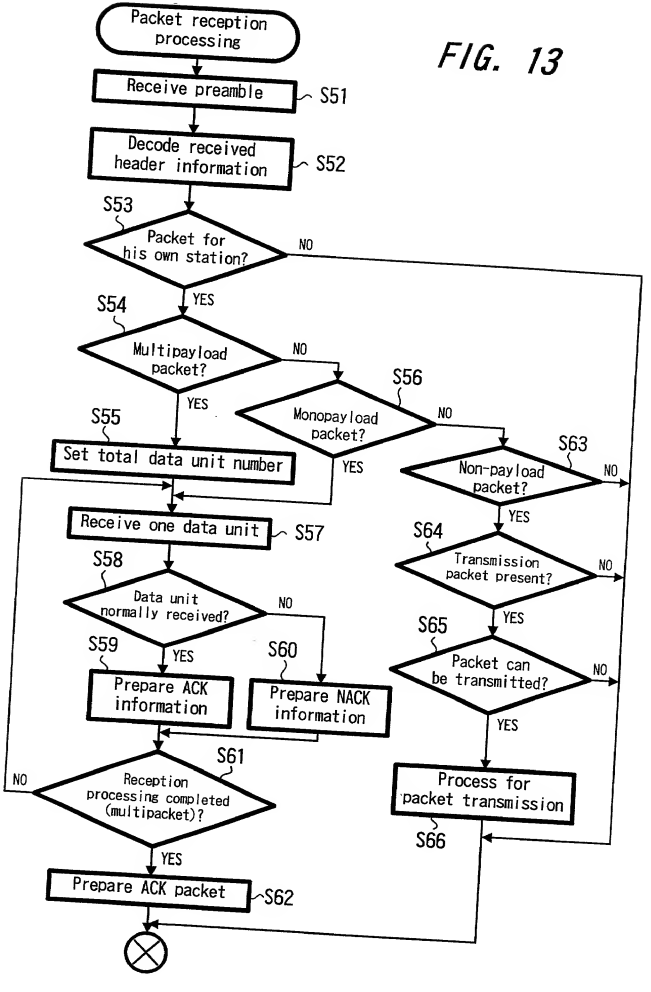


FIG. 14

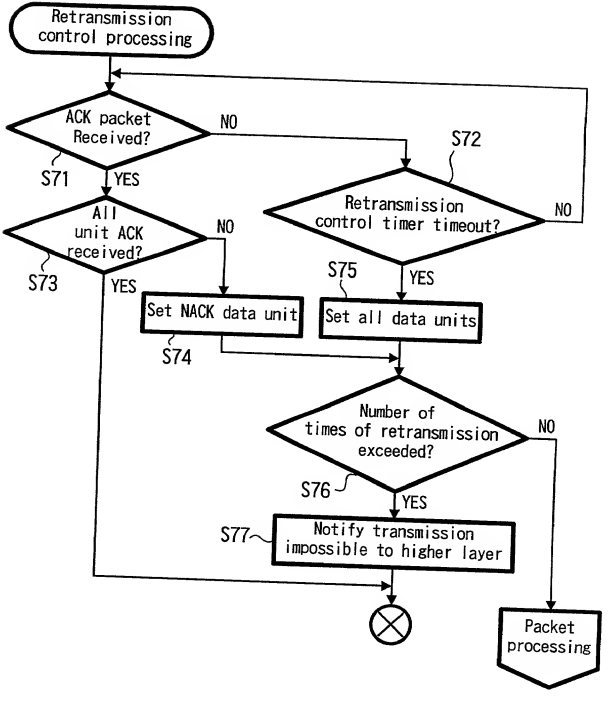

Retransmission control processing
ACK packet Received?
NO
S72
S71
YES
Retransmission control timer timeout?
NO
All unit ACK received?
NO
S73
YES
S75
YES
Set NACK data unit
Set all data units
S74
Number of times of retransmission exceeded?
NO
S76
YES
S77
Notify transmission impossible to higher layer
Packet processing

FIG. 15

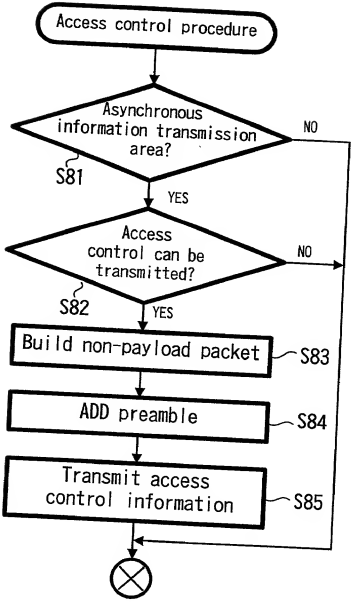

Access control procedure
Asynchronous information transmission area?
NO
S81
YES
Access control can be transmitted?
NO
S82
YES
Build non-payload packet
S83
ADD preamble
S84
Transmit access control information
S85

FIG. 16

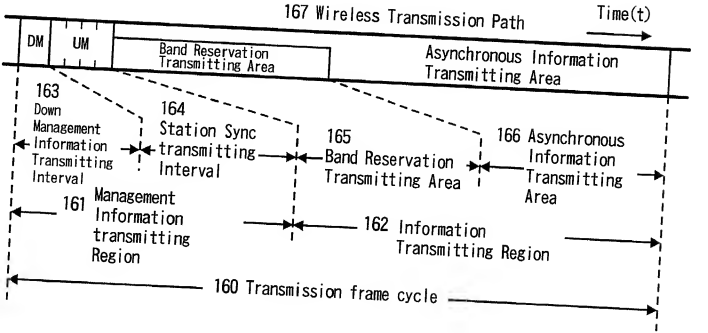

167 Wireless Transmission Path
Time(t)
DM
UM
Band Reservation Transmitting Area
Asynchronous Information Transmitting Area
163 Down Management Information Transmitting Interval
164 Station Sync transmitting Interval
165 Band Reservation Transmitting Area
166 Asynchronous Information Transmitting Area
161 Management Information transmitting Region
162 Information Transmitting Region
160 Transmission frame cycle

FIG. 17

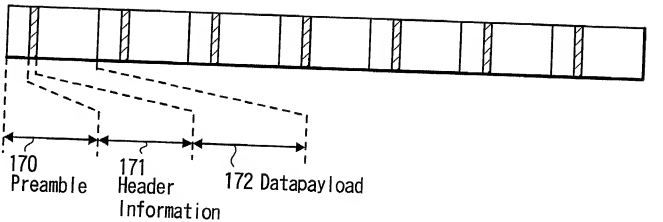
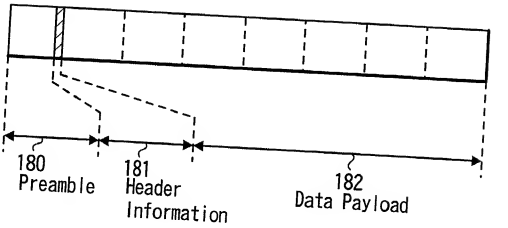



FIG. 18